

Preface

This volume is the proceedings of the ninth General Meeting (GM2016) of the International VLBI Service for Geodesy and Astrometry (IVS), held in Johannesburg, South Africa, March 13–17, 2016.



Fig. 1 Logo of the ninth IVS General Meeting.

The keynote of the ninth IVS General Meeting was the opening of new possibilities with the VLBI Global Observing System (VGOS) under the theme “New Horizons with VGOS.” The VGOS network will gradually develop into its full operational state over the next few years, but even during the transition period from the current S/X network to the higher accuracy VGOS systems, new frontiers in science and applications will be opened up by virtue of the increased coverage with VLBI data of unprecedented accuracy.

The ninth General Meeting was held at Ekudeni (Johannesburg), South Africa and was hosted by the Hartebeesthoek Radio Astronomy Observatory (HartRAO), a facility of the National Research Foundation (NRF) of South Africa. The goal of the meeting was to provide an interesting and informative program for a

wide cross-section of IVS members, including station operators, program managers, and analysts.

This volume contains the following:

- **Special report.** The IVS held a retreat in October 2015 which resulted in the preparation of the *Strategic Plan of the IVS for the Period 2016–2025*. IVS Chair Axel Nothnagel introduced the plan in the opening session of the General Meeting. A copy of the strategic plan is reproduced here.
- **The papers presented at the meeting.** There are six major sections of this volume, each corresponding to a meeting session. Poster and oral papers are mixed. The six sessions cover the following topics:
 1. Advances in VGOS Stations and Technology
 2. VGOS Strategies and Expected Results
 3. Stations, Correlators, and Operations Centers
 4. Data Structures and Analysis Strategies in the VGOS Era
 5. Geodetic and Astrometric VLBI Results
 6. VLBI Observations of Space Vehicles

This volume includes 77 papers. The program booklet with abstracts is available online at

[http://events.saip.org.za/
getFile.py/access?resId=
0&materialId=4&confId=56](http://events.saip.org.za/getFile.py/access?resId=0&materialId=4&confId=56)

All papers of this volume were edited by the editors for usage of the English language, form, and minor content-related issues.

- **A list of registered participants.**
- **An author index.**

The contents of this volume also appear on the IVS Web site at



Fig. 2 Participants of the ninth IVS General Meeting at the Lesedi African Lodge and Cultural Village, venue of the meeting banquet.

<http://ivscc.gsfc.nasa.gov/publications/gm2016>

143 registered participants from 22 countries attended the meeting, making this General Meeting as big as the previous one in Shanghai. It was especially nice to see a strong participation from several African countries. In the six sessions of the meeting, the participants gave 112 presentations; 68 of these were talks, and 44 were poster presentations.

The April 2016 issue of the IVS Newsletter has a feature article about the meeting. The Newsletter is available at

<http://ivscc.gsfc.nasa.gov/newsletter/issue44.pdf>

Photographs taken during the meeting week were posted online on the meeting Web site and the IVS Web site:

<http://events.saip.org.za/getFile.py?pageId=11&confId=56>

<http://ivscc.gsfc.nasa.gov/meetings/gm2016/>

The meeting was a huge success, showcasing outstanding research, productive interactions, and diverse social activities, all in a very friendly atmosphere and unique venue. The organization was flawless, and for that, the LOC cannot be thanked enough.



Fig. 3 Mrs. Pandor, Minister of Science and Technology, giving the opening speech.



Fig. 4 Meeting participants during an oral session.



Fig. 5 Axel Nothnagel (IVS Chair, left) and Ludwig Combrinck (Chair of the LOC, right) at the icebreaker reception.



Fig. 8 Beer and wine tasting at HartRAO.



Fig. 9 More oral presentations are given.



Fig. 6 The 26-m (foreground) and 15-m antennas at HartRAO.



Fig. 7 Groundbreaking for HartRAO's future VGOS telescope.



Fig. 10 Jim Lovell (left) and Bill Petrachenko (right) during one of the poster sessions.



Fig. 11 Stunning performance by tribal dancers at Lesedi.

The editors would like to thank the contributing authors to this volume for the timely submission of their papers. Only this made it possible that these proceedings could be produced with such a short turnaround time.

Beyond the General Meeting itself, a number of splinter meetings (large and small) were organized. In the week leading up to the General Meeting, the 2nd IVS Training School on VLBI for Geodesy and Astrometry was held at HartRAO. The school was a big success with 45 participants including 32 students from institutions in different countries in Africa and Asia, Europe, and North America. The participants hailed from Kenya (10), Zambia (9), Germany (7), Austria



Fig. 12 The beautiful landscape of the Swartkop Mountain Range.

(4), U.S.A. (4), China (2), Finland (2), France (2), Sweden (2), Ghana (1), Italy (1), and Spain (1).

During and after the GM, there were side meetings of the VGOS Technical Committee (VTC), the WG on ICRF3, the Monitor and Control Infrastructure (MCI) Group, the Asia-Oceania VLBI Group for Geodesy and Astrometry (AOV), and the WG on Galactic Aberration. Further, an IVS Analysis Workshop was held. All these meetings were held at Ekudeni.

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